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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/041,631      | 01/10/2002  | Hajime Ito           | Q68026              | 6578             |

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EXAMINER

STORMER, RUSSELL D

ART UNIT

PAPER NUMBER

3617

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/041,631

Applicant(s)  
H. Ito et al

Examiner  
Russell D. Stormer

Art Unit  
3617



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.701(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above, claim(s) 10-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-942) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

Art Unit: 3617

***Election/Restriction***

1. Applicant's election without traverse of the invention of Group I, claims 1-9 in Paper No. 7 is acknowledged.

Claims 9-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan.

Morgan teaches a cast wheel comprising a hub portion, a rim portion, and a plurality of spokes. As seen in figures 3 and 4, the spokes have an open rear side and a taper. The taper angle is not disclosed.

It is well-known that cast shapes must have a tapered form to permit the cast product to be removed from the mold or die. This angle is generally ranges from 1 degree to 3 degrees as a minimum taper to allow the product to be removed from the mold or die without damage to either. Therefore, it would have been well-known to those in the wheel casting art that since the

Art Unit: 3617

minimum taper angle of the spokes could be as little as 1 degree, an angle of 3.5 degrees or less would have been obvious as desired given the particular use of the wheel and the visual impression desired.

With respect to claims 3 and 6, the measurements of portions of the wheel are considered to be obvious mechanical expedients determined by the size of the wheel, the intended use, the desired cost of the wheel, etc.

With respect to claims 7 and 8, the DAS value is determined by the material used for casting and therefore is obvious as a mechanical expedient based on the intended use of the wheel, its desired properties, the target cost, etc.

It is noted that the wheel of Morgan is not described as a light-alloy wheel, but those of ordinary skill in the art would readily have been able to adapt the wheel to be cast from other materials such as a light alloy and therefore to form the wheel of Morgan from a light alloy would have been obvious to those of ordinary skill in the art based on the desired weight and strength of the wheel.

### *Conclusion*

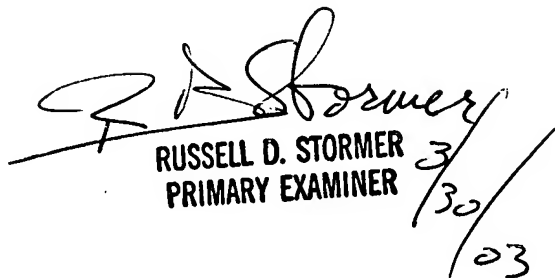
4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references show other wheels having a spoke portion which shows a tapered section. The citation of page 1342 of the Machinery's Handbook shows the well-known principle of allowing at least a 1 degree taper on a cast shape which is to be removed from a mold or die.

Art Unit: 3617

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (703) 308-1113.

rds

March 30, 2003

  
RUSSELL D. STORMER  
PRIMARY EXAMINER 3/30/03